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NOV 12 2002

TECH CENTER 1600/2900



1600

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/782,130

DATE: 11/04/2002  
TIME: 13:28:08

Input Set : A:\seqlst.txt  
Output Set: N:\CRF4\11042002\I782130.raw

3 <110> APPLICANT: KNAUF, VIC C.  
4 KRIDL, JEAN C.  
6 <120> TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR REGULATED TRANSCRIPTION  
7 AND EXPRESSION OF HETEROLOGOUS GENES  
9 <130> FILE REFERENCE: 16518.052  
11 <140> CURRENT APPLICATION NUMBER: US 09/782,130  
12 <141> CURRENT FILING DATE: 2001-02-12  
14 <150> PRIOR APPLICATION NUMBER: US 09/232,861  
15 <151> PRIOR FILING DATE: 1999-01-15  
17 <150> PRIOR APPLICATION NUMBER: US 08/812,665  
18 <151> PRIOR FILING DATE: 1997-03-07  
20 <150> PRIOR APPLICATION NUMBER: US 08/484,941  
21 <151> PRIOR FILING DATE: 1995-06-07  
23 <150> PRIOR APPLICATION NUMBER: US 08/105,852  
24 <151> PRIOR FILING DATE: 1993-08-10  
26 <150> PRIOR APPLICATION NUMBER: US 07/526,123  
27 <151> PRIOR FILING DATE: 1990-05-21  
29 <150> PRIOR APPLICATION NUMBER: US 07/267,685  
30 <151> PRIOR FILING DATE: 1988-11-02  
32 <150> PRIOR APPLICATION NUMBER: US 06/692,605  
33 <151> PRIOR FILING DATE: 1985-01-17  
35 <150> PRIOR APPLICATION NUMBER: US 07/582,241  
36 <151> PRIOR FILING DATE: 1990-09-14  
38 <150> PRIOR APPLICATION NUMBER: US 07/188,361  
39 <151> PRIOR FILING DATE: 1988-04-29  
41 <150> PRIOR APPLICATION NUMBER: US 07/168,190  
42 <151> PRIOR FILING DATE: 1988-03-15  
44 <150> PRIOR APPLICATION NUMBER: US 07/054,369  
45 <151> PRIOR FILING DATE: 1987-05-26  
47 <150> PRIOR APPLICATION NUMBER: US 07/742,834  
48 <151> PRIOR FILING DATE: 1991-08-08  
50 <150> PRIOR APPLICATION NUMBER: US 07/550,804  
51 <151> PRIOR FILING DATE: 1990-07-09  
53 <150> PRIOR APPLICATION NUMBER: US 07/147,781  
54 <151> PRIOR FILING DATE: 1988-01-25  
56 <150> PRIOR APPLICATION NUMBER: US 07/078,538  
57 <151> PRIOR FILING DATE: 1987-07-28  
59 <150> PRIOR APPLICATION NUMBER: US 06/891,529  
60 <151> PRIOR FILING DATE: 1986-07-31  
62 <160> NUMBER OF SEQ ID NOS: 35  
64 <170> SOFTWARE: PatentIn Ver. 2.1  
66 <210> SEQ ID NO: 1  
67 <211> LENGTH: 2200

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Input Set : A:\seqlst.txt  
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69 <213> ORGANISM: Brassica napus  
71 <400> SEQUENCE: 1  
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74 ctaaagggtt ctggctgtt tcttgttcat atgattaact tctaaacttg tgtataaata 180  
75 ttctctgaaa gtgcttctt tgcataatgt aggttggca aaaacgagga agattgctc 240  
76 tcaatttgaa agatgtgaa cagccgaaga agaaaataag aataggcagt cctgctactc 300  
77 aatggatctc agtctataac ggtcgtcgtc ccatgaaaca gaggtaacac atttttgca 360  
78 tatacacttt gatagttcct cactaactgt gtaatcttt ggtagatatc actacaatgt 420  
79 tggagagaca aggctgcgc agcatataca gaaggaaat gaagatggcc ttttatttag 480  
80 ctgttagca tcagcagcta atctctggc tctcatcatg gatgctggaa ctggattcac 540  
81 ttctcaagtt tatgagggtt caccggctt cctacacaag gtaataatca gttgaagcaa 600  
82 ttaagaatca atctgattt tagtaaacta agaagaactt accttatgat ttccccgcag 660  
83 gactggatta tggaaacaatg gggaaaagaac tactatataa gctccatagc gggttcagat 720  
84 aacgggagct cttaggttgc tatgtcaaaa ggttagtgtt tagtgaataa taaacttatt 780  
85 atcaaaaagt cttcattgac ttatttatat acttgggtgt aattggtagg aactacttat 840  
86 tctcagcagt catabaaatg ggtgactca ttccattca agtggataaa taagaaatgg 900  
87 aaagaagatt ttcatgtaac ctccatgaca actgctggta atcgttgggg tggtaatg 960  
88 tcgaggaact ctggctctc tgatcaggtt ggttttgc tcttatttgc tgggttttt 1020  
89 attttccctt gatagctaa tatgataaac tctgcgtt gaaagggtgtt ggagcttgac 1080  
90 ttttgtacc caagcgatgg gatacatagg aggtggaga atgggtatag aataacatca 1140  
91 atggcagcaa ctgcggatca agcagcttc atattaagca taccaaagcg taagatgg 1200  
92 gatgaaactc aagagactct ccgcaccacc gccttccaa gtactcatgt caagggtgt 1260  
93 ttcttagct ttgaacacag atttggatct ttttgggtt tttccatata cataggac 1320  
94 gagagctttt ggttgaattt ttttttttc aggacaaatg ggcgaagaat ctgtacattt 1380  
95 catcaatatg ctatggcagg acagtgtgt gatgatacac acttaagcat catgtgtt 1440  
96 gttagaaagc cgaagacaat tgagcgcgc ctcagggtcg tcataatacc aatcaaagac 1500  
97 gtaaaaaccag acgcgtctc ttgggttggaa tggatgtgtt tgggtatgtt 1560  
98 tgtacgagta acaaaagaga agatgtcaattt ggttagtataa aagatttgag agctttttaa 1620  
99 agcccttcaa gtgtgtgtt ttatcttattt gatatcatcc atttgcgtt ttaatgcgt 1680  
100 ctttagatat gtttctgttt ctttctcagt gtctgaatat ctgataagt caatgtgaga 1740  
101 aagccacacc aaaccaaaat attcaaatct tatattttta ataatgtcga atcactcgga 1800  
102 gtgccaccc tctgtgcca ttgtgtgtt gatgatacac taaaaaaaac atttcttcaa 1860  
103 gtaatgact tggactat gttctgaattt ctcattaaat ttttatttt tgaagttttaa 1920  
104 gtttttaccc ttttttgc aaaaatatgt tcataagatg tcacgccagg acatgagcta 1980  
105 cacatcacat attagcatgc agatgcggac gatttgcac tcacttcaaa cacctaaaag 2040  
106 agcttctctc tcacagcaca cacatcatg catcaatat ttacacgtga tcgcccattca 2100  
107 aatctccattt ctcaccata aatttagagcc tcggcttcac ttttactca aaccaaaact 2160  
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112 <211> LENGTH: 4324  
113 <212> TYPE: DNA  
114 <213> ORGANISM: Brassica rapa  
116 <220> FEATURE:  
117 <221> NAME/KEY: CDS  
118 <222> LOCATION: (2152)..(2703)  
120 <220> FEATURE:  
121 <221> NAME/KEY: modified\_base

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Input Set : A:\seqlst.txt  
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 123 <223> OTHER INFORMATION: a, c, t, g, other or unknown  
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 126 <221> NAME/KEY: modified\_base  
 127 <222> LOCATION: (3716) /  
 128 <223> OTHER INFORMATION: a, c, t, g, other or unknown  
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 132 <222> LOCATION: (3719)..(3720) /  
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 135 <220> FEATURE:  
 136 <221> NAME/KEY: modified\_base /  
 137 <222> LOCATION: (3803) /  
 138 <223> OTHER INFORMATION: a, c, t, g, other or unknown  
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 145 ctaaagggtt ctggctgttt tcttggatcat atgattaaact tctaaacttgcgttataaata 180  
 147 ttctctgaaa gtgtttttt tggcatatgtt aggttggca aaaacgagga agattgttgc 240  
 149 tcaatttggaa agaggatgaa cagccgaaga agaaaataag aataggcagt cctgtactc 300  
 151 aatggatctc agtctataac gtcgtcgctccatgaaaca gaggtaaaac atttttgc 360  
 153 tatacacttt gaaaggccct cactaactgtt gtaatctttt ggttagatatc actacaatgt 420  
 155 cggagagaca aggctgcgc agcatataca aaaggaaat gaagatggcc ttttgatttag 480  
 157 ctgtgttagca tcagcagcta atctctggc tctcatcatg gatgttgcgaa ctggatttcac 540  
 159 ttctcaagtt tatgtttttt caccggctt cctacacaag gtaataatca gttgaagcaa 600  
 161 ttaagaatca atttggatgg tagtaaaacta agaagaactt accttatgtt ttccccgcag 660  
 163 gactggatta tggaaacaatg ggaaaagaac tactatataa gctccatagc tggatcgat 720  
 165 aacggggactt cttagttgtt tatgtcaaaa gtttagtgtt tagtgaataa taaactata 780  
 167 ccacaaagtc ttcatgtact tattttatata cttgttgcgtt gatgttgcgttactacttatt 840  
 169 ctcagcagtc atacaaatgtt agtgcgttcat ttccgttcaa gttggataaaat aagaaatgg 900  
 171 aagaagattt tcatgttacc tccatgacaa ctgttgcgtt tcgttgggtt gttgtatgt 960  
 173 cgaggaactc tggcttcctt gatcaggtt gttttgtcttattgtt ggtgttttta 1020  
 175 ttttccctgt atagtcataat atgataaaactt ctgcgttgcgtt aaaggttgcgtt gagcttgact 1080  
 177 ttttgcgttcc aagcgatggg atacatagga ggttggagaa tgggtataga ataacatcaa 1140  
 179 tggcagcaac tgcgttccaa gcagcttca tattaaatgcgtt accaaagcgtt aagatgg 1200  
 181 atgaaactca agagactctc cgcaccaccg ctttccaaatg tactcatgtc aaggttgg 1260  
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 187 atatgtatg gcaggacagt gtgttgcgtt acacttaatgcgtt atcatgttgcgtt aagccaaaga 1440  
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 191 cctcttggt tgaatgtat gaaaggatg tttttttgtt ttccatatac ttaggacctg 1560  
 193 gagaagatgg aatttagttagt agaaatattt gggagctttt taagcccttc aagatgttgcgtt 1620  
 195 ttatcttcat tttatcttcatc catttgcgtt gttttaatgcgtt ttttttttttgcgtt aatattcaaa 1680  
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 199 ttttattttt aataatgttgcgtt aatcactcggtt agtttgcgtt aatattcaaa 1800  
 201 atctatcaca ctagaaaaaa acatttcttc aaggttgcgtt aatattcaaa 1860  
 203 ttctcattaa gttttttttt ttttttttttgcgtt aatattcaaa 1920  
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 207 cgatttgcgtt ctttttttttgcgtt aatattcaaa 2040

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211 cggcttcact cttaactcaa accaaaactc atcactacag aacatacaca a atg gcg 2157  
212 Met Ala  
213 1  
215 aac aag ctc ttc ctc gtc tcg gca act ctc gcc ttg ttc ttc ctt ctc 2205  
216 Asn Lys Leu Phe Leu Val Ser Ala Thr Leu Ala Leu Phe Phe Leu Leu  
217 5 10 15  
219 acc aat gcc tcc gtc tac agg acg gtt gtg gaa gtc gac gaa gat gat 2253  
220 Thr Asn Ala Ser Val Tyr Arg Thr Val Val Glu Val Asp Glu Asp Asp  
221 20 25 30  
223 gcc aca aat cca gcc ggc cca ttt agg att cca aaa tgt agg aag gag 2301  
224 Ala Thr Asn Pro Ala Gly Pro Phe Arg Ile Pro Lys Cys Arg Lys Glu  
225 35 40 45 50  
227 ttt cag caa gca caa cac ctg aaa gct tgc caa caa tgg ctc cac aag 2349  
228 Phe Gln Gln Ala Gln His Leu Lys Ala Cys Gln Gln Trp Leu His Lys  
229 55 60 65  
231 cag gca atg cag tcc ggt agt ggt cca agc tgg acc ctc gat ggt gag 2397  
232 Gln Ala Met Gln Ser Gly Ser Gly Pro Ser Trp Thr Leu Asp Gly Glu  
233 70 75 80  
235 ttt gat ttt gaa gac gac gtg gag aac caa caa cag ggc ccg cag cag 2445  
236 Phe Asp Phe Glu Asp Asp Val Glu Asn Gln Gln Gln Gly Pro Gln Gln  
237 85 90 95  
239 agg cca ccg ctg ctc cag cag tgc tgc aac gag ctc cac cag gaa gag 2493  
240 Arg Pro Pro Leu Leu Gln Gln Cys Cys Asn Glu Leu His Gln Glu Glu  
241 100 105 110  
243 cca ctt tgc gtt tgc cca acc ttg aaa gga gca tcc aaa gcc gtt aaa 2541  
244 Pro Leu Cys Val Cys Pro Thr Leu Lys Gly Ala Ser Lys Ala Val Lys  
245 115 120 125 130  
247 caa cag att cga caa caa cag gga caa caa atg cag gga cag cag atg 2589  
248 Gln Gln Ile Arg Gln Gln Gly Gln Gln Met Gln Gly Gln Gln Met  
249 135 140 145  
251 cag caa gtg att agc cgt atc tac cag acc gct acg cac tta cct aga 2637  
252 Gln Gln Val Ile Ser Arg Ile Tyr Gln Thr Ala Thr His Leu Pro Arg  
253 150 155 160  
255 gct tgc aac atc agg caa gtt agc att tgc ccc ttc cag aag acc atg 2685  
256 Ala Cys Asn Ile Arg Gln Val Ser Ile Cys Pro Phe Gln Lys Thr Met  
257 165 170 175  
259 cct ggg ccc ggc ttc tac tagattccaa acgaatatcc tcgagagtgt 2733  
260 Pro Gly Pro Gly Phe Tyr  
261 180  
263 gtataccacg gtgatatgag tgggttggat gatgtatgtt aacactacat agtcatggtg 2793  
265 tgggttccat aaataatgtt ctaatgtt aagaactact ccgttagacgg taataaaaga 2853  
267 gaagtttttttttttactct tgctactttc ctataaagtg atgattaaca acagatacac 2913  
269 caaaaagaaa acaattaatc tatattcaca atgaagcgt actagtctat tgaacatgtc 2973  
271 agattttctt ttctaaatg tctaattaag cttcaaggc tagtcatgtt aaaagatcat 3033  
273 ccaatggat ccaacaaaga ctcaaatctg gtttgatca gatacttcaa aactatttt 3093  
275 gtattcatta aattatgcaa gtgttctttt atttggtaaa gactctttag aagcaaagaa 3153  
277 cgacaagcag taataaaaaa aacaaagtcc agtttaaga ttgttattt acttattgtc 3213  
279 attgaaaaa tatagtatga tattatata gtttattta tataatgtt gtctattcaa 3273

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 283 tcaaacatat gataagatgg tcaaattgatt atgagtttg ttatattacct gaagaaaaaga 3393  
 285 taagttagct tcgagttct gaagggtacg tgatcttcat ttcttggcta aaagcgaata 3453  
 287 tgacatcacc tagagaaagc cgataatagt aaactctgtt cttgggtttt ggtaatca 3513  
 289 aaccgaaccg gtagctgagt gtcaagttag caaacatcgc aaaccatatg tcaattcggt 3573  
 291 agattcccggtttaagttgt aaaccggat ttcatatgtt gaaaacccta gaagccagcc 3633  
 W--> 293 ancctttta atctaatttt tgcaaaacgag aagtaccac acctctccac taaaaccctg 3693  
 W--> 295 aaccttactg agagaagcag agncannaaa gaacaataa aacccgaaga tgagaccacc 3753  
 W--> 297 acgtgcggcg ggacgttcag gggacgggga ggaagagaat grggcggmn tttggtggcg 3813  
 299 gcggcggacg ttttggtggc ggcggtggac gtttggtgg cggcggtggc ctttggtgg 3873  
 301 tggatatcg gacgaaggac ctcccagtga agtcatttgc tcgttactc ttttcttagt 3933  
 303 cgaatcttat tcttgcctcg ctgcgttgc taccgataaa gcttaagact ttattgataa 3993  
 305 agttctcagc tttgaatgtg aatgaactgtt ttccgtctta ttatgttcc ttgttttga 4053  
 307 gttgaatcac tgcgttagca cttttgttag attcatctt gtgttaagt taaaaggtag 4113  
 309 aaactttgtg acttgcctcc gttatgacaa ggttaactt gttggatata acagaagttg 4173  
 311 cgaccttctccatgttgc gagggtgtatg ctgtggacca agctctca ggcgaagatc 4233  
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 320 <212> TYPE: PRT  
 321 <213> ORGANISM: Brassica rapa  
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 325 1 5 10 15  
 327 Leu Leu Thr Asn Ala Ser Val Tyr Arg Thr Val Val Glu Val Asp Glu  
 328 20 25 30  
 330 Asp Asp Ala Thr Asn Pro Ala Gly Pro Phe Arg Ile Pro Lys Cys Arg  
 331 35 40 45  
 333 Lys Glu Phe Gln Gln Ala Gln His Leu Lys Ala Cys Gln Gln Trp Leu  
 334 50 55 60  
 336 His Lys Gln Ala Met Gln Ser Gly Ser Gly Pro Ser Trp Thr Leu Asp  
 337 65 70 75 80  
 339 Gly Glu Phe Asp Phe Glu Asp Asp Val Glu Asn Gln Gln Gln Gly Pro  
 340 85 90 95  
 342 Gln Gln Arg Pro Pro Leu Leu Gln Gln Cys Cys Asn Glu Leu His Gln  
 343 100 105 110  
 345 Glu Glu Pro Leu Cys Val Cys Pro Thr Leu Lys Gly Ala Ser Lys Ala  
 346 115 120 125  
 348 Val Lys Gln Gln Ile Arg Gln Gln Gly Gln Gln Met Gln Gly Gln  
 349 130 135 140  
 351 Gln Met Gln Gln Val Ile Ser Arg Ile Tyr Gln Thr Ala Thr His Leu  
 352 145 150 155 160  
 354 Pro Arg Ala Cys Asn Ile Arg Gln Val Ser Ile Cys Pro Phe Gln Lys  
 355 165 170 175  
 357 Thr Met Pro Gly Pro Gly Phe Tyr  
 358 180  
 361 <210> SEQ ID NO: 4  
 362 <211> LENGTH: 2154

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 11/04/2002  
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**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#: 2; N Pos. 3635, 3716, 3719, 3720, 3803

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L:293 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:3633

L:295 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:3693

L:297 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:3753